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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,675	09/29/2005	Takashi Date	4364.P0013US	5519
23474 7590 01/25/2008 FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631			EXAMINER HESS, BRUCE H	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 01/25/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/551,675

Applicant(s)

DATE ET AL.

Examiner

Bruce H. Hess

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12-8-06.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12-8-06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Hata et al. (JP 09-207435).

Hata et al. teach the advantages of employing a thermally sensitive recording layer that can comprises 1) an acrylic polymer obtained by copolymerizing an alkyl acrylate, an alkyl methacrylate and vinylsilane and 2) silica. The acrylic polymer can further contain styrene or acrylonitrile. The experimental modification of this prior art in order to ascertain optimum operating conditions (e.g., determine the silica particle size) fails to render applicants' claims patentable in the absence of unexpected results.

2. Claims 1, 3-6, 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of the patents to Ishida et al. (EP 0 326 964 or USP 4,977,133).

The Ishida et al. patents. teach the advantages of employing a thermally sensitive recording layer that can comprises 1) an acrylic polymer obtained by copolymerizing an alkyl acrylate, an alkyl methacrylate and vinylsilane and 2) silica. The acrylic polymer can further contain styrene. The experimental modification of this prior art in order to ascertain optimum operating conditions (e.g., determine the silica particle size) fails to render applicants' claims patentable in the absence of unexpected results.

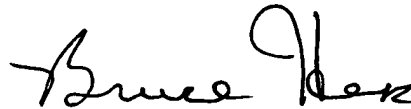
3. Claims 2, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of the patents to Ishida et al. in view of the patent to Hata et al.

The primary references apply as per the preceding paragraph. Given the advantages of employing acrylonitrile in an alkyl acrylate/ alkyl methacrylate/vinylsilane containing copolymer in a thermally sensitive recording layer as taught by the

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secondary reference, use of acrylonitrile in the alkyl acrylate/ alkyl methacrylate/vinylsilane containing copolymer of the primary references would have been obvious to one of ordinary skill in this art in the absence of unexpected results.

A handwritten signature in black ink, appearing to read "Bruce Hess". The signature is fluid and cursive, with the first name "Bruce" and the last name "Hess" clearly distinguishable.

BRUCE H. HESS  
PRIMARY EXAMINER  
GROUP 1300